

KHODAKOV, ABRAM LAZAREVICH

DECEASED

1964

C. '62

CRYSTALS

FERROELECTRIC PROPERTIES

KHODAKOV, B.

KHODAKOV, B., student.

In the White Russian State University. Radio no.10:11 0 '57.  
(MIRA 10:10)

1. Khimicheskiy fakul'tet Belorusskogo gosudarstvennogo  
universiteta imeni V.I.Lenina.  
(White Russia--Radio clubs)

TSAYG, B.A.; KHODAKOV, D.Ye. (Kuybyshev-obl.)

Treatment of fractures of the patella. Kaz. med. zhur. no. 4:90-  
91 JI-Ag '60. (MIRA 13:8)

(PATELLA--FRACTURE)

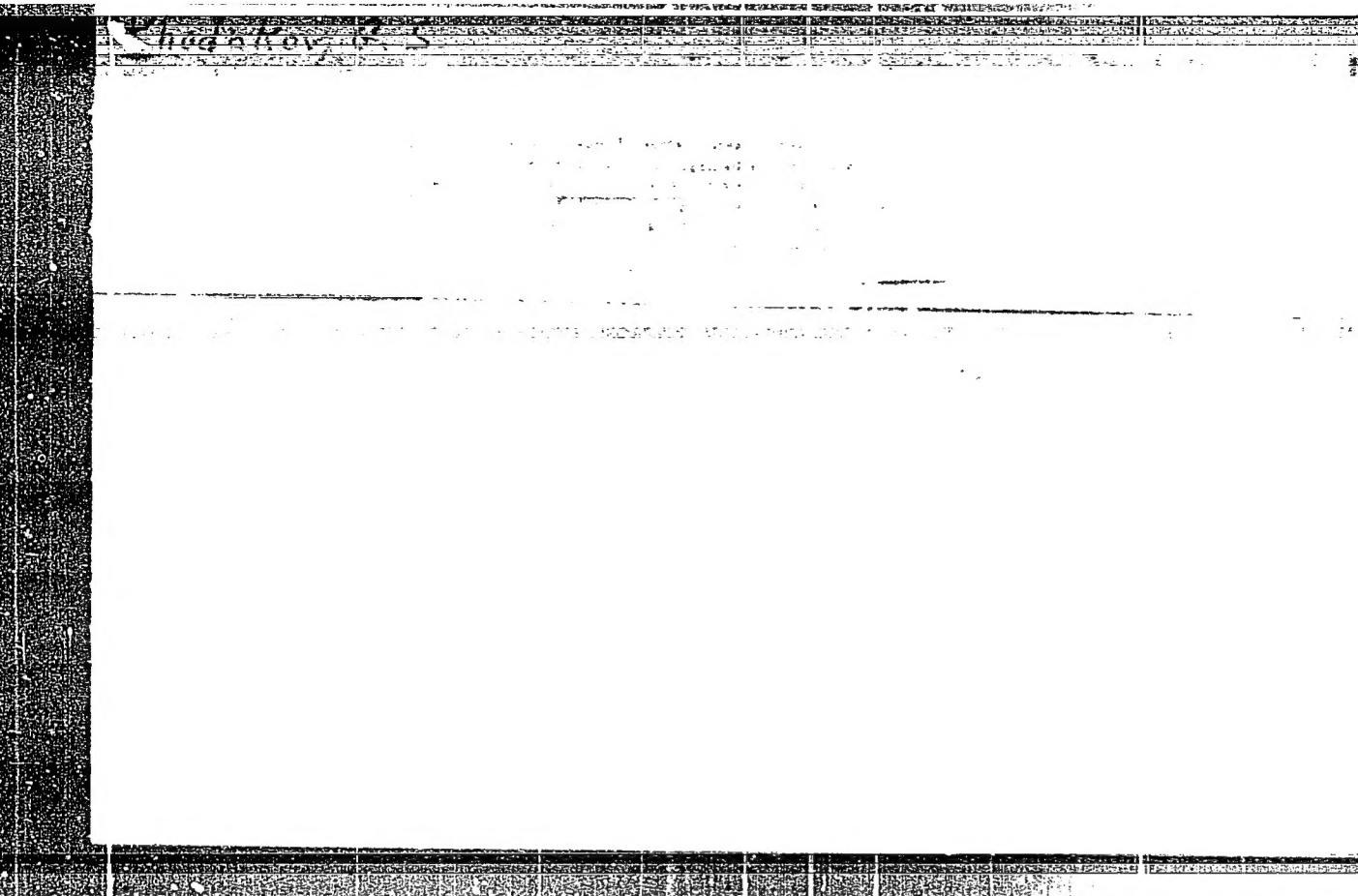
KHODAKOV, G.S.; KUDRYAVTSEVA, N.L. (Moscow)

Characteristics of the adsorption of gases and vapors on aggregated dispersed materials during their comminution. Zhur.fiz.khim. 37 no.10: 2241-2248 O '63. (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov Akademii stroitel'stva i arkhitektury SSSR.

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722120008-9



APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722120008-9"

Khoo D. H. G. S.

/ Determination of the specific surface area of finely pow  
dered materials by the method of nitrogen adsorption

with nitrogen gas

KHODAKOV, G.S.

5(4)

SOV/20-123-4-43/53

AUTHORS: Khodakov, G. S., Plutsis, E. R.

TITLE: On the Solubility of Finely Crushed Quartz in Water (O rastvorimosti tonkoizmel'chennogo kvartsa v vode)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 4, pp 725-728 (USSR)

ABSTRACT: The present paper deals with the solubility of quartz powder in distilled water. The degree of dispersion of the powder under investigation was estimated according to its specific surface. The quantity of quartz contained in the solution was photolorimetrically determined. Also the influence of the glass from which the vessel is made and of the silicon in the steel container was taken into account. The first diagram shows the curves of the kinetics of the dissolution of finely ground quartz sand in water. The course taken by these curves confirms the formation of a true (and not of a colloidal) solution. These curves are well described by the kinetic equation  $C = C_{\text{solubility}} (1 - e^{-k\tau})$ . Here  $C$  denotes the concentration of the  $\text{SiO}_2$  passing into the solution within the time  $\tau$ ,

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On the Solubility of Finely Crushed Quartz in Water SOV/20-123-4-43/53

$C_{\text{solubility}}$  - the solubility,  $k$  - the solution rate constant.

$C_{\text{solubility}}$  can be determined from the above diagram. The aforementioned equation may be written down as follows:

$$\ln \frac{C_{\text{solubility}}}{C_{\text{solubility}} - C} = kt ; \text{ it is confirmed by experimental}$$

data. The constant  $k$  does not depend on the duration of quartz crushing and amounted in the case of the experiments discussed here to  $0.056 \text{ days}^{-1}$ . A prolongation of the duration of the dry crushing of the quartz increases the values of  $C_{\text{solubility}}$ .

According to the data obtained, the investigated powders of finely ground quartz sand have practically the same surface. According to the authors' data, the solubility of the finely ground quartz in water at room temperature in some cases attains the value of  $120 \text{ mg/l}$ , which surpasses the solubility of coarse-crystalline quartz by 20 times its amount. This abnormally high solubility may be explained by a destruction of the crystal structure of quartz in the grinding mill. The here discussed data make it possible to explain the mechanism of the formation of the hydrosilicates of calcium and magnesium

Card 2/3

On the Solubility of Finely Crushed Quartz in Water SOV/20-123-4-43/53

in the interaction of their hydroxides with the finely ground sand in water at room temperature. Also the part played by sand filling medium of concrete with a low cement content, which was ground in a vibration mill, may be explained in a similar manner. The authors thank Academician P. A. Rebinder, D. S. Sominskiy, V. B. Ratinov and L. A. Feygin for discussing results and for their valuable advice, and they also thank N. I. Gludina for her assistance. There are 3 figures, 1 table, and 16 references, 12 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut tonkogo izmel'cheniya Akademii stroitel'stva i arkhitektury SSSR  
(All-Union Scientific Research Institute for Fine Grinding of the Academy of Building and Architecture, USSR)

PRESENTED: July 25, 1958, by P. A. Rebinder, Academician

SUBMITTED: July 23, 1958

Card 3/3

5(4)

SOV/20-127-5-38/58

AUTHORS: Khodakov, G. S., Rebinder, P. A., Academician

TITLE: The Investigation of the Fine Dispersion of Quarts and of the Influence of Added Liquids Upon This Process

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 5, pp 1070-1073 (USSR)

ABSTRACT: The effect produced by acetone, ethyl alcohol, water, benzene, triethanolamine and oleic acid upon the dispersion of quartz sand was investigated. Crushing was carried out in a laboratory vibration mill, and determination of the degree of dispersion by measuring the specific surface by means of adsorption of nitrogen at low temperatures according to reference 14. Figures 1-4 and tables 1 and 2 show the experimental results. The addition of liquids causes a considerable increase of the specific surface in comparison to dry-grinding. The effect produced by the individual liquids is about equal. This result is explained by the fact that, in the case of dry grinding, relatively solid particle complexes are produced, the tight packing of which prevents nitrogen from penetrating, so that a large part of the free surface is eliminated. Additions of liquids cause a considerable extent of desaggregation. As

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SOV/20-127-5-38/58

The Investigation of the Fine Dispersion of Quartz and of the Influence of Added Liquids Upon This Process

shown by figure 3, desaggregation depends upon the quantity of the liquid added. In water, a minimum occurs at an addition of 2-30%, which is followed, as a result of further additions, by a rapid increase of desaggregation. As shown by experiments, the described phenomena are confined not only to quartz alone, but in a different degree characteristic also of other solid substances, such as corundum, and calcite. There are 4 figures, 2 tables, and 19 references, 14 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut tornogo izmel'-cheniya Akademii stroitel'stva i arkhitektury SSSR (All-Union Scientific Research Institute for Fine Grinding of the Academy of Building and Architecture, USSR). Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry of the Academy of Sciences, USSR)

SUBMITTED: May 22, 1959

Card 2/2

KHODAKOV, G. S., Cand Phys-Math Sci -- (diss) "Research into processes of quartz dispersion." Moscow, 1960. 18 pp; (Academy of Sciences USSR, Inst of Physical Chemistry); 150 copies; price not given; bibliography at end of text(11 entries); (KL, 26-60, 131)

15.2110  
5(4)

67896

AUTHORS:

Kiselev, V. F., Krasil'nikov, K. G., Khodakov, G. S. S/020/60/130/06/026/059  
B004/B007

TITLE:

The Influence of the Aggregation of Quartz Particles During Grinding Upon Its Adsorptive Properties <sup>16</sup>

PERIODICAL:

Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 6, pp 1273 - 1276 (USSR)

ABSTRACT:

In reference 1 it was said that the specific surface of air-dried quartz decreases with an increase of the duration of grinding. This was explained by the aggregation of the quartz particles. The authors aimed at investigating this phenomenon more thoroughly and to find out whether its effects on the adsorption of nitrogen, and water differ. They maintain that this phenomenon is the cause of the considerable discrepancy in published data for adsorption values and adsorption energy of quartz. Two samples of highly dispersive quartz were investigated. Sample Kv-4 was obtained by grinding transparent-crystalline quartz with an excess of water, sample Kv-4A by further grinding Kv-4 in air. On both samples, the adsorption of nitrogen and steam was measured (Table 1). As shown by

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67896

The Influence of the Aggregation of Quartz Particles S/020/60/130/06/026/059  
During Grinding Upon Its Adsorptive Properties B004/B007

figure 1, the adsorption isothermal line of nitrogen on Kv-4A is lower than in the case of Kv-4 because of particle aggregation, whereas the adsorption isothermal line of steam is higher. Also figure 2 shows that the different kind of grinding the same quartz affects the adsorption of nitrogen and steam differently. This phenomenon has not yet been explained. It is presumed that relatively dense aggregates are formed, the inner surfaces of which are inaccessible to the nitrogen, whereas the adsorption of water is not impaired by these aggregations because of its dispersive (peptizing) properties. Such phenomena of aggregation were observed also in the case of other substances (corundum, calcite, silica gel) in dry grinding. The authors thank Academician P. A. Rebinder for his interest in this paper, and G. I. Aleksandrova for assisting in measurements. There are 2 figures, 1 table, and 21 references, 13 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
(Moscow State University imeni M. V. Lomonosov). Vsesoyuznyy  
Card 2/3 nauchno-issledovatel'skiy institut novykh stroitel'nykh

67896

The Influence of the Aggregation of Quartz Particles S/020/60/130/06/026/059  
During Grinding Upon Its Adsorptive Properties B004/B007

materialov (All-Union Scientific Research Institute for New  
Building Materials)

PRESENTED: October 20, 1959 by P. A. Rebinder, Academician

SUBMITTED: October 13, 1959

Card 3/3



KHODAKOV, G.S.; REBINDER, P.A.

Effect of the medium on the processes of dispersion of solids.  
Koll.shur. 22 no.3:365-375 My-Je '60. (MIRA 13:7)

1. Institut fizicheskoy khimii AN SSSR, Otdel dispersnykh sistem  
i Institut novykh stroitel'nykh materialov AN SSSR, Moskva.  
(Dispersion) (Quartz)

KHODAKOV, G.S.

Kinetics of the fine comminution of quartz. Dokl. AN SSSR 13<sup>4</sup> no.3:  
574-577 S '60. (MIRA 13:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh  
materialov Akademii stroitel'stva i arkhitektury SSSR. Predstavleno  
akad. P.A. Rebinderom.

(Quartz)

KHODAKOV, G.S.; REBINDER, P.A.

Mechanism of comminution of quartz in surface active media [with summary in English]. Koll.zhur. 23 no.4:482-490  
Jl-Ag '61. (MIRA 14:8)

1. Institut fizicheskoy khimii AN SSSR, Otdel dispersnykh sistem i Nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov Akademii stroitel'stva i arkhitektury SSSR.  
(Quartz)

KAMAY, G.Kh.; KLADUNOVSKIY, Ye.I.; GATILOV, Yu.F.; KHODAKOV, G.S.

- Separation of quaternary arsonium compounds into optical antipodes by asymmetric adsorption on natural dissymmetric adsorbents. Dokl. AN SSSR 139 no.5:1112-1113 Ag 1961.  
(I.R.A. 14:8)

1. Institut organicheskoy khimii AN SSSR, g. Kazan', i  
Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.  
Predstavleno akademikom B.A. Arbuzovym.  
(Arsonium compounds) (Adsorption)

5/069/62/024/002/008/008  
B110/144

AUTHOR: Khodakov, G. S.  
TITLE: A case of mechanochemical quartz dispersion  
PERIODICAL: Kolloidnyy zhurnal, v. 24, no. 2, 1962, 236 - 237

TEXT: Mechanical and chemical effects were combined in an attempt to reach maximum silica dispersion. Deformation of the crystalline structure by grinding increased the reactivity of silica with calcium or magnesium oxides, in dependence on the duration of the process. Hydrosilicates formed at normal temperatures and pressures. Quartz powders ground to  $< 6\text{m}^2/\text{g}$  with an M-10(M-10) vibrating mill were studied. Small blocks were formed from aqueous pastes with 9 parts by weight of  $\text{SiO}_2$  and 1 part by weight of  $\text{MgO}$ , and then washed with hot aqueous acetic acid to remove hydrosilicates.

Powders of  $> 200\text{ m}^2/\text{g}$  specific surface, approximately 30 times the initial value, were thus obtained. The particle nuclei remained crystalline whereas the amorphous shell passed over into the filtrate. This behavior may be applied to adsorption and catalysis. Electron microscopic studies showed the dispersion to take place in particles of several hundredths  $\mu$   
Card 1/2

S/069/62/024/002/008/008  
B110/B144

A case of mechanochemical quartz...

and irregular shapes. There are 1 figure, 1 table, and 4 references.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut novykh  
stroitel'nykh materialov Akademii stroitel'stva i arkhitektury  
SSSR, Moskva (All-Union Scientific Research Institute of New  
Building Materials of the Academy of Construction and  
Architecture USSR, Moscow)

SUBMITTED: May 6, 1961

Card 2/2

S/020/63/148/003/021/037  
B108/B180

5.5650

AUTHOR: Khodakov, G. S.

TITLE: Determining the specific surface of highly disperse powders  
by rarefied gas filtration

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 3, 1963, 581-584

TEXT: Discrepancies appear in the results of specific surface determination of pressed powder samples even at high pressures. They are probably due to the fact that the structural features of the porous body are not adequately considered. Here, the specific surface is expressed on the assumption that the gas molecules passing through the pores undergo a greater number of collisions with the walls of the pores than with other molecules. The experimental work is then reduced to determining the capacities of the sample at two different gas pressures. The specific surface resulting from these data was found to be independent of the porosity of the sample. There are 3 figures. ✓B

Card 1/2

KHODAKOV, G.S.

Effect of fine grinding on the physicochemical properties  
of solids. Usp. khim. 32 no.7:860-881 J1 '63.

(MIRA 16:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh  
stroitel'nykh materialov.



KUDRYAVTSEVA, N.L.; KHODAKOV, G.S.

Effect of the additions of surface-active substances on the  
diminution of clinker. Dokl. AN SSSR 156 no. 2:437-440 My  
'64. (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroi-  
tel'nykh materialov. Predstavleno akademikom P.A.Rebinderom.

KHODAKOV, G.S.

Mechanical and chemical dissociation of liquids on freshly  
formed surfaces of solids. Dokl. AN SSSR 156 no.6:1416-1419  
Je '64. (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh  
stroitel'nykh materialov Akademii stroitel'stva i arkhitektury  
SSR. Predstavleno akademikom P.A. Rebinderom.

EDEL'MAN, L.I.; KHODAKOV, G.S.

Sedimentation analysis of disperse systems with continuous recording of the weight of accumulated deposit in the centrifugal field. Koll. zhur. 26 no.3:380-385 My-Je '64. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov, Moskva.

KHODAKOV, G.S.; EDEL'MAN, L.I.

Float-type photoelectric recording device for analysis of variance  
in a centrifugal field. Zav. lab. 30 no.8:1024-1025 '64.

(MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'-  
nykh materialov.

KHODAKOV, G.S.

Mechanical and chemical dissociation of liquids on freshly  
formed surfaces of solids. Dokl. AN SSSR 156 no.6:1416-1419  
Je '64. (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh  
stroitel'nykh materialov Akademii stroitel'stva i arkhitektury  
SSR. Predstavleno akademikom P.A. Rebinderom.

KHODAKOV, G.S.

Laws governing gas flow through finely porous bodies. Dokl. AN  
SSSR 163 no.2:350-353 J1 '65. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy inatitut novykh stroitel'nykh  
materialov. Submitted December 31, 1964.

ACC NR: AP6017959

SOURCE CODE: UR/0413/66/000/010/0027/0027

INVENTOR: Khodakov, G. S.

ORG: None

TITLE: A method for producing highly dispersed silica. Class 12, No. 181634 [announced by the All-Union Scientific Research Institute of New Structural Materials (Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov)]

SOURCE: Izobreteniya, promyshlennyye obraztsey, tovarnyye znaki, no. 10, 1966, 27

TOPIC TAGS: silica, quartz, magnesium oxide, calcium oxide

ABSTRACT: This Author's Certificate introduces a method for producing highly dispersed silica from pulverized quartz sand. The process is simplified by adding magnesium oxide or calcium oxide to the initial material and treating the mixture with water after grinding. The solution is then allowed to stand and mineral acid is used for removing hydrosilicates.

SUB CODE: 11/ SUBM DATE: 26Nov63

Card 1/1

UDC: 661.718,5

23

✓ Physicochemical properties of powdery pyrite. K. KIMURA, *Amashima*  
Proc. 11, No. 3, 23-6 (1932).—Dust-like pyrites obtained from crooked varieties and  
botation works, and used for the prepn. of pulp cooking acid were investigated.

ASS-54.6 METALLURGICAL LITERATURE CLASSIFICATION



Roasting of flotation pyrites in Ural chemical factories. K. V. Knopakov. *Doklady Akad. Nauk SSSR*, No. 9, 42-41(1982). General impracticability in the roasting of pyrites are recommended.

ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

12

Utilization of knot waste from Pick separator in the Sokol mill. G. A. KASIRINA  
AND N. V. KUDAROV. *Sovetskoye Stroyaniye* From 11, No 11, (1954) 1000. A more  
efficient type of pulp-wood knots is discussed

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSING AND PROPERTIES INDEX																																																			
<p>co</p>																										<p>18</p>																									
<p>The use of pyrites containing carbon. I. The fundamentals of burning pyrites containing carbon. — K. V. Khodakov, <i>J. Chem. Ind. (Moscow)</i> 1933, No. 8, 66-7. — A diagram is given to show the relation between the percentage of <math>SO_2</math>, excess air and compn. of the pyrites when the latter are burned. II. The possibility of using pyrites containing carbon in the contact system. S. Bulkhovskii. <i>Ibid.</i> 67-9. — If account is taken of the extra <math>O_2</math> required, such pyrites are suitable for burning the contact system. H. M. Leicester</p>																																																			
<p>ASAC-51A METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			

**Accelerated canning cooking with excess liquor removal.**  
K. V. Khodakov, *Bumachant* *From 1933, No. 9,*  
*1934, No. 10.*

22 (4); *Zhurnal* n. *Papir* 14, 314-16 (1934). - Steam is let into the digester to raise the digester temp. to 115° in 1-2 hrs. The excess liquor is removed from the top of the digester for a 3-min. period to impregnate completely the top layer of chips with the liquor. The excess liquor is then withdrawn for 3-min. periods, at intervals, from the bottom of the digester until the trap rises to 135°. This hot liquor is let into another digester or into a second-impregnation vat. After 135° is reached, the excess liquor is removed for a period of 10 min. At the end of the cook, steam at 8 atm. is blown through the digester for 10-20 min., resulting in a better cook and better recovery of the cooking liquor. A single long excess liquor-removal period at 135° decreases the cooking time by about 1 hr., while the combination of long and short relief periods, as outlined above, decreases the total cooking time by about 3.0-4 hrs. This method of cooking reduces the yield by about 3.0% and increases the S consumption. Cooking data for 23 canns are tabulated.

S. I. Aronovsky

S. J. Aronson

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

1ST AND 2ND PROPERTIES

PROPERTIES AND PROPERTIES INDEX

18

Characteristics of roasting carbonaceous pyrites. K. V. KIRICHAKOV. *Sovetskaya Prom.* 12, No. 1, 10-71(1933); cf. C. A. 27, 220. A discussion. C. R.

ASS. S. L. A. METALLURGICAL LITERATURE CLASSIFICATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

12

Performance of Doranfeld-type scrubbers and bubbling washers. K. V. Khodakov and G. A. Kallistratov. *Doklady Akad. Nauk SSSR*, No. 4, 24-30(1934).—In the purification of pyrites roast gas by a system of scrubbing and washing, the loss of  $SO_2$  by oxidation to  $SO_3$  is reduced by spraying cold water into the scrubber without steam heating, and the loss by  $SO_3$  absorption is reduced 50% by injecting the warm water from the scrubber into the washer and heating it to 60-80° by passing steam through a false bottom of the washer. C. B.

DETALLURGICAL LITERATURE CLASSIFICATION

[illegible]

1ST AND 2ND CODES		PROCESSING AND PROPERTY		3RD AND 4TH CODES	
CO		<p>Combating resin difficulties in the papermaking machines of the "Bokai" mill. N. V. Khodakov. <i>Tsentral. Nauch.-Issledovatel. Inst. Dnepropetrovsk. Materialy</i> 1933, No. 3, 106-114. —Studies of the causes of "injurious resinification" in the process of sulfate pulping and its effect on the quality of resulting paper confirm the results of Konopatskii (C. A. 28, 38415). Contrary to Konopatskii a preliminary deresinification of wood by steaming showed no improvement. A settling tank for the removal of impurities from cooking acid is illustrated and described.</p>		23	
ASD-5LA DETAILING LITERATURE CLASSIFICATION					
100000 00		100000 000 000 000		100000 000 000 000	
100000 00		100000 000 000 000		100000 000 000 000	



1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PRINCIPLES AND PRIORITIES INDEX																										PRINCIPLES AND PRIORITIES INDEX																									
<p>CA</p> <p>New method for determining the sulfur dioxide content of gases from pyrites burner K. V. Khodakov. Summaries from 18. No. 4, 50 (1947); <i>Chemie &amp; Industrie</i> 30, 740. The sample is taken by means of a bottle that is evacuated. The SO<sub>2</sub> is absorbed in water and titrated with Ca(OH)<sub>2</sub> in the presence of starch and KI. A. Parmentier-Lestienne</p>																																																			
<p>454.35.4 METALLURGICAL LITERATURE CLASSIFICATION</p> <p>18001 170-03100</p>																																																			

23

Resin difficulties in the papermaking machines (of the "Beko" mill). K. V. Khoshkhan. *Bumashinaya Prom.* 13, No. 8, 78-83 (1937); cf. C. A. 20, 8430. As a supplement to the previous data on the "injurious resinification" in the process of sulfate pulping, it is shown that the resin difficulties in the papermaking machines are caused not only by the natural resins and oils of wood, but also by the resinic size and lubricating oils, which form sticky, oily resinous deposits on the paper surface. Some actual measures for combating the resin trouble in the pulping and paper sizing are suggested (cf. Kono, *patent*, C. A. 20, 3481).

Chao, Huan

ATD-3.5A METALLURGICAL LITERATURE CLASSIFICATION

Ca

23

The solubility of sulfur dioxide in calcium bisulfite. K. V. Khodakov. *Doklady Akad. Nauk SSSR*, No. 9, 83 (1967); cf. *Tsentral. Nauch.-Issledovatel. Inst. Khimichesk. Prom. Materialy* 1934. The solub. of equiv. quantities of  $\text{CaO}$ ,  $\text{MgO}$  and dolomite with  $\text{SO}_2$  under equal conditions gives cooking acids of equal strength. Data are given on the increasing strength of the acid liquor with increasing concn. of bases and on the direct proportion between the partial pressure and bisulfite concn. A poly. nomogram for  $\text{SO}_2$  under various conditions is given and its use in the control of the prepn. of acid, pulping and recovery of spent liquor is described. A procedure is discussed for storing cooking acid under a layer of xylene to prevent pptn. Cf. Conrad and Bruschlein (*C. A. B.*, 8119). Chas. Blane

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

62

*CP*

Apparatus for sampling pulp suspension at higher concentrations. K. V. Khudakov. *Russkaya Prom.* 13.  
No. 6, 71(1917). A sampling dipper of 1-l. capacity fitted with a long handle and a swinging lid, is used to detg. the pulp concn. in suspension. Chas Blawie

METALLURGICAL LITERATURE CLASSIFICATION  
9

RECORD NUMBER  
000001 ONE ONE ONE

<sup>Y</sup>  
KHODAKOV, N. D., and ANICHKOV, N.N.  
<sub>A</sub>

Ueber die Vitelfarbung der oberen Luftwege und des Gehororgans bei Kaninchen.  
Zeitschr. fur Hals-, Nasen--und Ohrenheilkunde. 37, 4, 284-291, 1935.

NARAVTSEVICH, Zinoviy Abramovich; KHODAKOV, Naum Moiseyevich;  
NEYMAN, M.I., red.

[For the participant of a tourist trip] Uchastniku turist-  
ristskogo pokhoda. Moskva, Meditsina, 1964. 39 p.  
(MIRA 17:5)

ZAKHAROV, Ye.D.; GUR'YEV, I.I.; SOLOV'YEVA, V.V.; DRONOVA, N.P.;  
GIL'DENGORN, I.S.; KHODAKOV, P.Ye.; BCNDAREV, B.I.

Nonuniformity in continuously cast ingots and its effect  
on the quality of semifinished products. Alium. splavy  
no.3:371-382 '64. (MIRA 17:6)

KHODAKOV, V.

On the road toward the improvement of farming (from the Regional  
Agricultural Conference in Rostov-on-Don). Zemledelie 23 no.10:  
85-88 0 '61. (MIRA 14:9)  
(Rostov Province--Agriculture)



KHODAKOV, V., kand.tekhn.nauk

Improve the operation of water works for fire fighting. Pozh.delo  
7 no.12:17-18 D '61. (MIRA 14:11)  
(Fire extinction--Water supply)

KHODAKOV, V. A.

Integrals

Dissertation: "An Integral With a Small Range." Cand Phys-Math Sci, Mechanics-Mathematics Faculty, Moscow Order of Lenin State U imeni M. V. Lomonosov, 26 Mar 54. (Vechernyaya Moskva -- Moscow, 16 Mar 54).

SO: SVM 213, 20 Sep 1954

L 18316-65 EWO(j)/EWT(1)/EMP(e)/EWO(k)/EWT(m)/EPT(c)/EPT(n)-2/EPR/EZC(b)-2/EMP(b)  
 Pz-5/Pz-4/Pz-4/Pu-4 IJP(o)/APWL/SSD WW/AT/WH  
 8/0089/64/017/005/0329/0335  
 ACCESSION NR: AP4049532

AUTHOR: Millionshchikov, M. D.; Gverdtsiteli, I. G.; Abramov, A. S.; Gorlov, L. V.; Gubanov, Yu. D.; Yefremov, A. A.; Zhukov, V. P.; Ivanov, V. Ye.; Kovy\*rzin, V. K.; Koptalov, Ye. A.; Kosovskiy, V. G.; Kukharkin, N. Ye.; Kucherov, R. Ya.; Laly\*kin, S. P.; Markin, V. I.; Nechayev, Yu. A.; Pozdnyakov, B. S.; Ponomarev-Stepnov, N. N.; Samarin, Ye. N.; Serov, V. Ya.; Usov, V. A.; Fedin, V. G.; Yakovlev, V. V.; Yakutovich, M. V.; Khodakov, V. A.; Kompaniyets, G. V.

TITLE: The "Romashka" high-temperature reactor-converter /9

SOURCE: Atomnaya energiya, v. 17, no. 5, 1964, 329-335

TOPIC TAGS: nuclear power reactor, reactor feasibility study, research reactor, thermoelectric converter/Romashka

ABSTRACT: The authors briefly describe the construction, parameters, test results, and operating experience of the "Romashka" reactor.

Cord 1/18

L 18316-65  
ACCESSION NR: AP4049532

converter unit, which has been in operation at the Kurchatov Atomic Energy Institute since August 1964. The fuel used is uranium dioxide enriched to 90%  $U^{235}$ . Graphite and beryllium are used as reflectors. Electricity is generated by silicon-germanium semiconductor thermocouples distributed on the outer surface of the reflector and connected in four groups which can be connected in series or in parallel. The temperatures of the active zone and outer surface are 1770 and 1000C, respectively. The power ratings are 0.50-0.80 kW electric and 40 kW thermal, the maximum current (parallel connection) is 88 A, the neutron flux is  $10^{13}$  neut/cm<sup>2</sup> sec in the center of the active zone and  $7 \times 10^{12}$  on its boundary. The reactor has a negative temperature reactivity coefficient. The equipment has high inherent stability and requires no external regulator, and little change was observed in the thermocouple properties after 2500 hours of operation. Tests on the equipment parameters are continuing, and the results are being analyzed for use in future designs. Orig. art. has: 8 figures and 1 formula.

Cord 2/3

MILLIONSHCHIKOV, M.D.; GVERDTSITELI, I.G.; ABRAMOV, A.S.; GORLOV, L.V.;  
GUBANOV, Yu.D.; YEFREMOV, A.A.; ZHUKOV, V.F.; IVANOV, V.Yo.;  
KOVYRZIN, V.K.; KOPTILOV, Ye.A.; KOSOVSKIY, V.G.; KUKHARKIN,  
N.Ye.; KUCHEROV, R.Ya.; LALYKIN, S.P.; MERKIN, V.I.; NECHAYEV,  
Yu.A.; POZDNYAKOV, B.S.; PONOMAREV-STEPNOY, N.N.; SAMARIN, Ye.N.;  
SEROV, V.Ya.; USOV, V.A.; FEDIN, V.G.; YAKOVLEV, V.V.; YAKUTOVICH,  
M.V.; KHODAKOV, V.A.; KOMPANIYETS, G.V.

High-temperature reactor-converter "Romashka." Atom. energ.  
17 no.5:329-335 N '64. (MIRA 17:12)

KHODAKOV V. A.  
KHLOPKIN, N. S.

"Temperature-Field of Reactor Fuel Element at Non-Uniform Heat Removal",

by V. A. Khodakov and N. S. Khlopkina.

Report Presented at 2nd UN Atoms-for-Peace Conference, Geneva, 9-13 Sept 1958

KHODAKOV, V. F., Engr

USSR/Metals - Cutting

Aug 50

"Semiautom-tic Machine for Cutting Circular Flanges," Engineers S. A. Gol'denberg, V. F. Khodakov

"Avtogen Delo" No 8, pp 20-22

Describes semiautomatic gas cutting machine for mass production of pipes in ship-building industry. Machine is designed to cut flanges of 50-600 mm diameter from steel 10 - 30 mm thick. One advantage is possibility of cutting flanges at very edge of metal sheet, bringing waste to minimum. Productivity is 25 pieces for 8 hours. Operation of four machines for 1 $\frac{1}{2}$  years demonstrated dependability.

FDD

PA 167T71

KHODAKOV, V. F.

Moscow Inst of Water Economy Engineers imeni V. R. Vil'yams. Chair of  
Hydraulics. Moscow, 1956.

KHODAKOV, V. F.- "On the union of a turbulent stream with a calm one in expanding streams."  
Moscow Inst of Water Economy Engineers imeni V. R. Vil'yams. Chair of Hydraulics.  
Moscow, 1956.  
(Dissertation for the Degree of Candidate in Technical Sciences.)

SO: Knizhnaya Letopis' No. 13, 1956.



KHODAKOV, V.F., kand.tekhn.nauk

Union of turbulent and streams in suddenly enlarging channels.  
Nauch.zap. MII VKh 20:198-214 '58. (MIWA 13:6)  
(Hydraulics)

KHODAKOV, V., kand.tekhn.nauk; SHUVALOV, M., inzh.

Useful textbook ("Practical hydraulics in fire prevention"  
by N.A.Tarasov-Agalakov. Reviewed by V.Khodakov,  
M.Shuvalov). Posh.delo 6 no.8:32 Ag '60.

(MIRA 13:8)

(Fire prevention) (Hydraulics)  
(Tarasov-Agalakov, N.A.)

KHODAKOV, V.G.; AVSYUK, G.A., otv. red.; OGANOVSKIY, P.N., red.

[The Arctic Ural]Poliarnyi Ural. Moskva. (Its Materialy  
gliatsiologicheskikh issledovani). [Snow cover]Snezhnyi  
pokrov. 1962. 129 p. (MIRA 16:2)

1. Akademiya nauk SSSR. Institut geografi.  
(Ural Mountains--Runoff)

KHODAKOV, V.G.; AVSYUK, G.A., otv.-red.; OGANOVSKIY, P.N., red.

[The Arctic Ural] Poliarnyi Ural. Moskva. (Its Materialy glaciologicheskikh issledovani). [Ablation. Runoff] Abliatsiia. Stok. 1962. 140 p. (MIRA 16:2)

1. Akademiya nauk SSSR. Institut geografii.  
(Ural Mountains—Glaciology)  
(Ural Mountains—Runoff)

KHODAKOV, V.G.

Possible error in the measurement of precipitation. Meteor. i  
gidrol. no.6:51-52 Je '64 (MIRA 17:8)

KHODAKOV, V.G.

Dependence of the total ablation of the surface of glaciers  
on the air temperature. Meteor. i gidrol. no.7:48-50 J1 '65.  
(MIRA 18:6)

1. Institut geografii AN SSSR.

L 45786-66 JI/JXT(BF)

ACC NR: AR6016024

SOURCE CODE: UR/0271/66/000/001/B030/B030

AUTHOR: Khodakov, V. Ye.

39  
B

TITLE: Use of an APM-1 typewriter in computer output devices

SOURCE: Ref. zh. Avtomat. telemekh. i vychisl. tekhn., Abs. 1B214

REF SOURCE: Avtomatika i priborostr. Inform. nauchno-tekhn. sb., no. 2(22), 1965, 31-33

TOPIC TAGS: digital computer, printer, automatic printer/APM-1 printer

ABSTRACT: The automatic APM-1 printer developed at the Scientific Research Institute of Control Computers (NII upravlyayushchikh VM) is described. Since its parameter printing is done line by line, data concerning each parameter are arranged in columns making it possible to rapidly analyze the course of the process. The printer operates according to the principle of "quick printing" (the type carrying wheel rotates at a constant speed). During printing, an electromagnet actuates the hammer when the selected sign passes underneath it. At the moment of printing, the paper tape stops and then advances on step. Because the typewriter contains 24 characters, a 5-digit binary code is required.

Card 1/2

UDC: 681.142.623

L 45786-66

ACC NR: AR6016024

The typewriter and digital computer are coupled by a circuit using ferrite-diode elements and transistorized amplifiers. The control circuit uses RMUG-type relays and telephone-type keys. The functional diagram of printing control and the electromechanical diagram of the control device are described. State tests of the experimental model of the typewriter and two years of test operation have demonstrated its high reliability. Orig. art. has: 2 illustrations. [Translation of abstract] [DW]

SUB CODE: 09/

Card 2/2 pb



L 62253-65 EWT(d)/EED-2/ENP(1) LJP(c) HB/GO

ACCESSION NR: AP5016087

UR/0302/65/000/002/0031/0033  
601.142.623

AUTHOR: Khodakov, V. Ye. <sup>44</sup>

TITLE: Using an APM-1 printer at the computer output <sup>1601 44</sup>

SOURCE: Avtomatika i priborostroyeniye, no. 2, 1965, 31-33

TOPIC TAGS: computer printer, on the fly printer / APM-1 printer

ABSTRACT: The development and test results of the first Soviet on-the-fly printer APM-1 are reported. The high-speed line printer uses a continuously rotating print wheel carrying 24 characters; they are selected by a 5-digit binary code. Fast-acting hammers print the characters. The printer is connected to the computer via a control unit which comprises ferrite-diode logical elements and semiconductor amplifiers. Functional and principal circuits of this unit are presented and their operation is briefly explained. During the two-year operation of an APM-1 on-the-fly printer prototype, no failure of a major component occurred. Orig. art. has: 2 figures.

Card 1/2

L 62253-65

ACCESSION NR: AP5016087

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: DP, II

NO REF SOV: 000

OTHER: 000

*dm*  
Card 2/2

KSHEMINSKIY, E.I.; KHODAKOV, V.Ye.

Transducer for indicating angular positions of a shaft in  
automatic printing machines. Avtom. i prib. no.1:58-60  
Ja-Mr '65. (MIRA 18:8)

CHURANOV, S., prepodavatel'; KHODAKOV, Yu., prof.; CHERTKOV, I.,  
prepodavatel' khimii

Problems and experiments in chemistry. Nauka i zhizn' 30 no.4:  
98 Ap '63. (MIRA 16:7)

1. Moskovskiy gosudarstvennyy universitet (for Churanov).
2. Kafedra khimii Moskovskogo aviatsionnogo ordena Lenina  
instituta im. Serge Ordzhonikidze (for Khodakov).
3. Nauchno-  
issledovatel'skiy institut obshchege i politekhnicheskogo  
obrazovaniya Akademii pedagogicheskikh nauk RSFSR (for Chertkov).  
(Chemistry—Problems, exercises, etc.)

MINACHEV, Kh.M.; KHODAKOV, Yu.S.

Kinetics of hydrogenation of the vinyl ether of  $\beta$ -(diethylamino)  
ethanol and vinyl phenyl ether on 1% Pd/Al<sub>2</sub>O<sub>3</sub>. Izv. AN SSSR Otd. khim.  
nauk no. 4: 722-724 Ap '61. (MIRA 14:4)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.  
(Ether) (Hydrogenation)

MINACHEV, Kh.M.; MARKOV, M.A.; KHODAKOV, Yu.S.

Effect of gamma rays on the catalytic activity of platinized  
aluminosilicate. Izv. AN SSSR. Otd.khim.nauk no.7:1227-1230  
Jl '61. (MIRA 14:7)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.  
(Aluminosilicates) (Catalysis) (Gamma rays)

MINACHEV, Kh.M.; KHODAKOV, Yu.S.

Effect of gamma rays on the activity of platinum-containing catalysts. Izv. AN SSSR. Otd.khim.nauk no.8:1430-1432 Ag '61.  
(MIRA 14:8)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.  
(Gamma rays) (Catalysis) (Platinum)

KHODAKOV, Yu.S.; MINACHEV, Kh.M.

Kinetic relations of hydrogen peroxide decomposition of  
 $\gamma$ -irradiated and nonirradiated lanthanum hydroxide. Zhur.  
fiz. khim. 37 no.11:2445-2450 N'63. (MIRA 17:2)

1. Institut organicheskoy khimii imeni Zelinskogo, AN SSSR.



L 48581-65

DWT(m)/EPF(c)/BWP(j)/BWP(t)/BWP(b)

20-4/Pr-4 101'c

JD/JG/RM

ACCESSION NR: AP5006775

S/0195/65/006/001/0089'0094

AUTHOR: Minachev, Kh. M.; Khodakov, Yu. S.

TITLE: Study of the catalytic properties of the rare earth elements in the reaction of the transformation of normal butane

SOURCE: Kinetika i kataliz, v. 6, no. 1, 1965, 89-94

TOPIC TAGS: rare earth element, butane, transformation, lanthanum, cerium, praseodymium, neodymium, samarium, holmium, erbium, dysprosium, ytterbium, thulium, terbium

ABSTRACT: Circulation-flow and static methods were used to investigate the catalytic properties of the oxides of lanthanum, cerium, praseodymium, neodymium, samarium, holmium, erbium, dysprosium, ytterbium, thulium, and terbium in the reaction of the transformation of normal butane at 400-550°C. The catalytic properties of erbium oxide were also studied in the transformation of propylene, ethane, and ethylene. Prepared catalysts were heated in a muffle furnace at 650° for 5 hours. The tests were conducted both with a flow-circulation unit and a static unit (see figs. 1 and 2 of the Enclosure). The kinetics of the reaction in all cases were described by

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L 48581-65

ACCESSION NR: AP5006775

an equation of the first order. Specific rates, preexponential factors, and energies of activation were determined for all the oxides studied. It was found that the slopes of the curves for magnetic and catalytic properties differ in the rare earth oxide series. "The authors express their gratitude to V. A. Kozlovskaya for participating in the experimental work." Orig. art. has: 6 figures, 3 tables, 1 equation.

ASSOCIATION: Institut organicheskoy khimii imeni N. D. Zelinskogo AN SSSR  
(Institute of Organic Chemistry, AN SSSR)

SUBMITTED: 26 Jul 63

ENCL: 0

SUB CODE

IG, OC

NO REF SOV: 005

OTHER: 005

Card 2/4

KHODAKOV, Yu.S.; MINACHEV, Kh.M.; STERLIGOV, O.D.

Kinetics of the catalytic dehydrogenation of butane to  
butylenes. Dokl. AN SSSR 165 no.2:344-346 N '65.

(MIRA 18:11)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.  
Submitted April 12, 1965.

KHODAKOV, Yu.V.; ZHURAVLEVA, T.M.; MIL'CHENKO, V.V.

Determination of chromate and dichromate simultaneously. Zav.lab.  
29 no.8:929 '63. (MIRA 16:9)

1. Moskovskiy aviatsionnyy institut imeni S.Ordzhonikidze.  
(Chromates) (Dichromates)

1ST AND 2ND SERIAL										3RD AND 4TH SERIAL									
PROCESSING AND PROPERTY INDEX																			
<div style="text-align: center;"> <div>CR</div> <div> <p>✓ Theory of dominating forms. 1. Chemical equilibria as electrostatic phenomena. Yu. V. Khodakov, J. Gen. Chem. (U. S. S. R.) 4, 336-347 (1931). II. Theory of hydrides. <i>Ibid.</i> 359-71. H. C. A.</p> </div> </div>										<div style="text-align: right;">2</div>									
<div style="display: flex; justify-content: space-between;"> <div> <p>450-550 METALLURGICAL LITERATURE CLASSIFICATION</p> <p>10000 SYNOBOL</p> </div> <div> <p>10000 40 000 001</p> <p>10000 40 000 001</p> </div> </div>																			

nitrolic acid as a twin of sulfuric acid. A. L. Agafonova and Ye. V. Khmel'nyy. *Compt. rend. acad. sci. U. R. S. S. R.* 40:380-2(1945)(in English); cf. C. A. 19:616. -- Kh. has developed theoretical reasons for concluding that the strength of O-contg. acids increases with the at. no. of the acid-forming element. This is confirmed by detns. of the 2nd ionization consts. of  $H_2SO_4$  (I) and  $H_2SeO_4$  (II) made by coulometric detn. of the pH of  $HNO_3$  solns. to which  $Na_2SO_4$  or  $Na_2SeO_4$  was added. Methyl orange was used as indicator. The 2nd ionization consts. of I and II were found to be, resp.,  $3.5 \times 10^{-8}$  and  $7.0 \times 10^{-8}$ . The relative strengths of the two acids remained unchanged throughout the interval 0-60°.

J. W. Perry

1ST AND 2ND QUARTERS		3RD AND 4TH QUARTERS	
<p><i>CA</i></p> <p><b>THE STRENGTH OF STRONG ACIDS.</b> Yu. V. Khodakov, <i>Doklady Akad. Nauk S. S. S. R.</i> 61, 121-8 (1943). Previous conclusions as to the relative strengths of strong acids based on Kh.'s "theory of dominating forms" (cf. <i>C. A.</i> 38, 2347, 2319; 39, 1511) were confirmed by data reported by Kalthoff and Williams (cf. <i>C. A.</i> 38, 3044). The relatively low acid strength attributed by Kh. to HCl is in agreement with recent calms. by Schwarzenbach (cf. <i>C. A.</i> 39, 1077) and with the results of Ramen- effect studies by Ochs, <i>et al.</i> (cf. <i>C. A.</i> 34, 7748). Also in <i>Compt. rend. acad. sci. U. R. S. S.</i> 61, 117-19 (in English). J. W. Perry</p> <p><i>2</i></p>			
<p>ABB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>			
EDSON SYNDICATE		EDSON SYNDICATE	
100000 HAY GUY 62		100000 HAY GUY 62	

Ca

6

Structure and properties of the modifications of P as a consequence of its atomic structure. Yu. V. Khodakov. *Doklady Akad. Nauk S. S. S. R.* 42, 125-6(1944). *Chem. Abstr.* 39, 120-1(1944) (in English). — *Uspehi Akad. sci. U. R. S. S. S. R.* 42, 120-1(1944) (in English). — Instability of white P is attributed to strains in the mol. because of its tetrahedral structure involving distortion of the valence angles by about  $40^\circ$ . Intercryst. rearrangement of white P tends to form infinitely extended lattices with valence angles nearer to their natural value. The structure of  $P_4O_6$  is probably a regular octahedron formed of O atoms with the centers of 4 of the 8 faces occupied by P atoms whose natural valence angles causes their displacement along the normals to the octahedron faces so as to form obtuse pyramids resting thereon. J. W. Perry

55-55A METALLURGICAL LITERATURE CLASSIFICATION



COMMON ELEMENTS		COMMON VARIABLES	
12		6	
<p><b>Stereochemistry of anhydrides.</b> Yu. V. Kholakiv. <i>Doklady Akad. Nauk S.S.S.R.</i> 43, 212-13; <i>Chem. Abstr.</i> 1954, 48, 213-4 (1944) (in English). - The chem. properties of acid anhydrides can be correlated with their stereochem. structure, provided the latter is in accord with the 2 following principles: (1) Every high-valency atom with 4 coordination tends to form around itself a tetrahedron composed of O atoms. (2) These tetrahedrons avoid having faces or edges in common. In anhydrides, <math>X_2O_n</math> (<math>X = Cl, S, P, Si</math>), these conditions are fulfilled when all (<math>SiO_2</math>) or part (3 with <math>P_2O_5</math>, 2 in <math>SO_2</math>, and 1 in <math>Cl_2O_7</math>) of the 4 O atoms grouped around any one X atom also enter into the formation of tetrahedrons surrounding other X atoms. In the case of <math>Cl_2O_7</math>, only one type of simple, nonpolymeric mol., viz. <math>O_7Cl_2</math>, is possible. With <math>SO_2</math>, polymers may form either rings (easily fusible, volatile <math>\alpha</math>-<math>SO_2</math>) or long, thread-like mols. (asbestos-like, <math>\beta</math>-<math>SO_2</math>). In the latter case, very small amts. of <math>H_2O</math> probably sat. the valencies at the ends of the chains. This is in harmony with the catalytic action of traces of <math>H_2O</math> in converting <math>\alpha</math>-<math>SO_2</math> into <math>\beta</math>-<math>SO_2</math>. The most probable structure for <math>P_2O_5</math> is a dimer mol., <math>P_2O_7</math>, in the form of a tetrahedron built up by joining 4 tetrahedrons (each consisting of 1 P and 4 O atoms) at the vertices so that each tetrahedron is joined at 3 vertices with one vertex of each of the other 3 tetrahedrons. This formula explains the ease with which <math>P_2O_5</math> is oxidized to <math>P_2O_6</math> (cf. <i>C.A.</i> 38, 6221) and the obscure complexities involved in the stepwise reaction of <math>P_2O_5</math> with <math>H_2O</math>. J. W. Perry</p>			
<p>AD-514 METALLURGICAL LITERATURE CLASSIFICATION</p>			
<p>GROUP 1</p>		<p>GROUP 2</p>	
<p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p>		<p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100</p>	

Mechanism of the hydration of the volatile modification of phosphorus pentoxide. N. I. Rodmanov and Yu. V. Khodakov. Zhur. Obshchei Khim. 33 (1959) 20, 1347-57 (1959). By following the contents of orthophosphate, tripolyphosphate, and pyrophosphate as functions of time, the authors confirmed their previously proposed mechanism in both acid and alk. media:  $P_2O_5 \xrightarrow{H_2O} H_4P_2O_7$  (tetragonal mol. with P atoms as apexes of a tetrahedron, *J. A.* 39, 1815)  $\xrightarrow{H_2O} H_6P_3O_{10}$  (open chain)  $\xrightarrow{H_2O} H_8P_4O_{13}$  +  $H_2P_2O_7$ .  $H_8P_4O_{13}$  +  $H_2P_2O_7$   $\xrightarrow{H_2O}$   $2H_6P_3O_{10}$ .  $H_6P_3O_{10}$  was detd. by titrating the  $H^+$  liberated when the soln. was treated with excess  $Ag^+$ . Tripolyphosphate was detd. by titrating the  $H^+$  liberated by the reaction  $H_6P_3O_{10} + 2Zn \rightarrow Zn_2P_2O_7 + 2H^+$ , gravimetrically detg. pyrophosphate, and subtracting the amt. of  $H^+$  liberated by it. The presence of  $H_8P_4O_{13}$  was also demonstrated by the isolation of  $Na_2H_8P_4O_{13}$  from the soln. Cyrus Fekelman

CA

6

The mechanism of hydration of the volatile modification  
of phosphoric anhydride. N. I. Radkova and Yu. V.  
Kholakov. *J. Gen. Chem. U.S.S.R.* 20, 1401-11(1957)  
(Engl. translation). - See C.A. 43, 603Y. R. M. S.

KHODAKOV, Yu.V., chlen-korrespondent.

Structure of inorganic substances. Khim. v shkole no.3:3-12 My-Je '53.  
(MLRA 6:7)

1. Akademiya pedagogicheskikh nauk.

(Chemical structure)

KHODAKOV, Yu. V.

[General and inorganic chemistry] Obshchaya i neorganicheskaia khimiia. Moskva, Akad.ped.nauk RSFSR, 1954. 523 p. (MLA 8:1 D)

SHAPOVALENKO, S.G.; KHODAKOV, Yu.V.

New chemistry handbook for the 7th class. Khim.v shkole 9 no.6:  
34-43 H-D '54. (MLRA 8:1)  
(Chemistry)

KHODAKOV, YU. V.

ORESTOV, I.L.

Serious shortcomings of a useful and needed book. "General and inorganic chemistry." Y.V. Khodakov. Reviewed by I.L. Orestov. Khim. v shkole 10 no. 4: 70-73 1955. (MIRA 8:9)  
(Chemistry, Inorganic) (Khodakov, IU.)

KHODAKOV, Yuriy Vladimirovich; TSVETKOV, Leonid Aleksandrovich; SHAPOVALENKO, Sergey Grigor'yevich; EPSHTEYN, David Arkad'yevich; GRABITSKIY, A.A., redaktor; KOZLOVSKAYA, M.D., tekhnicheskiy redaktor.

[Chemistry; textbook for the class 10 of the secondary school]  
Khimiia; uchebnik dlia 10 klassa srednei shkoly. Pod red. S.G.Shapo-  
valenko. Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshche-  
niia RSFSR, 1956. 167 p. (MIRA 9:6)  
(Chemistry)



"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722120008-9

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722120008-9"

KHODAKOV, Yuriy Vladimirovich; IVANOVA, G.A., otvetstvennyy red.; KRAVTSOVA,  
P.M., tekhn.red.

[Stories about invisible matter] Rasskazy o veshchestvakh-nevidim-  
kakh. Moskva, Gos.izd-vo detskoi lit-ry M-va prosv. RSFSR, 1957.  
93 p. (MIRA 11:6)

(SCIENCE--JUVENILE LITERATURE)

KHODAKOV, Yuriy Vladimirovich; SAVEL'YNA, R.N. red.; TSYPO, P.V., tekhn.  
red.

[Story-problems in chemistry; a manual for teachers] Rasskaz-  
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